

In the Claims:

1. (Presently Amended) An apparatus ~~A method and an apparatus~~ for correcting retinal detachments of an eye comprising:
a heat-shrinkable ~~by heat-shrinking a specially designed~~ encircling scleral band;
wherein said band comprises ~~equipped with a hole and~~ a snap-on custom-made buckle with a peg. ~~for scleral indentation over the retinal tear region.~~
2. (Withdrawn) An apparatus ~~A method and an apparatus of~~ to surgically correct for ~~correcting~~ retinal detachments of an eye as described in claim 1 such that the encircling heat shrink band is made from a heat shrinkable ~~shrink~~ material ~~such as a polymer and is~~ equipped with a snap-on custom-made buckle to perfectly fit the topological geometry of the retinal detachment region over the underlying choroid and the sclera, the conjunctiva and within the Tenon's space wherein the said encircling band is heat shrunk to create a perfect buckle over the retinal tear region to reattach the retina to the choroid and cause absorption of the subretinal fluid.
3. (Withdrawn) An apparatus according to claim 2 ~~claims 1 and 2~~ ~~A method of for~~ correcting retinal detachments to be surgically placed through a small conjunctival incision ~~comprising the steps of inserting an heat shrink band into the~~ Tenon's space to the depth of the break; using a custom-designed buckle for scleral indentation. ~~in the eye; leaving said member in place until subretinal fluid has absorbed and the retina has reattached.~~
4. (Withdrawn) A method of correcting retinal detachments including the steps of claim 2, the additional step of leaving said member in place for at least three days after reattachment to promote better adhesion.
5. (Withdrawn) A method of correcting retinal detachments including the steps of claim 2,

the additional step of collapsing said member in stages prior to removing same.

6. (Withdrawn) A heat shrinkable ~~shrink~~ band equipped with a snap-on custom-designed buckle for scleral indentation over the retinal tear of an eye for use in the treatment of retinal detachments comprising: a substantially encircling heat shrinkable ~~shrink~~ band, a snap-on custom designed buckle for scleral indentation over the retinal tear, means of heat shrinking the band in a number of stages to gradually drain out subretinal fluid.

7. (Presently Amended) A heat shrink buckle band equipped with a custom designed buckle in accordance with claim 1 ~~elaim1, 2, 3, elaim 2~~, wherein the custom designed buckle is essentially a hemispherical buckle with a central insertion peg in the back for snap on insertion into a hole in the band and attachment to the band.

8. (Presently Amended) A heat shrink buckle band equipped with a custom designed buckle in accordance with claim 1 ~~elaims 1, 2, 3, elaim 2~~, wherein the custom designed buckle is essentially a flat-top hemi-spherical buckle with a central insertion peg in the back for snap on insertion into a hole in the band and attachment to the band.

9. (Presently Amended) A heat shrink buckle band equipped with a custom designed buckle in accordance with claim 1 ~~elaims 1, 2, 3, elaim 2~~, wherein the custom designed buckle is essentially a hemi-cylindrical buckle with a central insertion peg in the back for snap on insertion into a hole in the band and attachment to the band.

10. (Presently Amended) A heat shrink buckle band equipped with a custom designed buckle in accordance with claim 1 ~~elaims 1, 2, 3, elaim 2~~, wherein the custom designed buckle is essentially a flat-top hemi-cylindrical buckle with a central insertion peg in the back for snap on insertion into a hole in the band and attachment to the band.

11. (Presently Amended) A heat shrink buckle band equipped with a custom designed buckle in accordance with claim 1 ~~claims 1, 2, 3, claim 2,~~ wherein the custom designed buckle is essentially a an oval shaped buckle with a central insertion peg in the back for snap on insertion into a hole in the band and attachment to the band.

12. (Presently Amended) A heat shrink buckle band equipped with a custom designed buckle in accordance with claim 1 ~~claims 1, 2, 3, claim 2,~~ wherein the custom designed buckle is essentially a flat-top oval shaped buckle with a central insertion peg in the back for snap on insertion into a hole in the band and attachment to the band.

13. (Presently Amended) A heat shrink buckle band equipped with a custom designed buckle in accordance with claim 1 ~~claims 1, 2, 3, claim 2,~~ wherein the custom designed buckle is essentially a custom-made buckle of ~~irregular or any other~~ the retinal tear shape with a central insertion peg in the back for snap on insertion into a hole in the band and attachment to the band.

14. (Presently Amended) A heat shrink buckle band equipped with a custom designed buckle in accordance with claim 1 ~~claims 1, 2, 3, claim 2,~~ wherein the heat shrink materials used are biocompatible medical grade materials.

15. (Presently Amended) A heat shrink buckle band equipped with a custom designed buckle in accordance with claim 1 ~~claims 1, 2, 3, claim 2,~~ wherein the materials used is a combination of heat shrink polymer and medical grade silicone synthetic rubber material.

16. (Presently Amended) A heat shrink buckle band equipped with a custom designed buckle in accordance with claim 1 ~~claims 1, 2, 3, claim 2,~~ wherein the band material used is a ~~medical grade heat shrink polymer such as~~ medical grade polyurethane or polyolefin.

17. (Presently Amended) A heat shrink buckle band equipped with a custom designed buckle

in accordance with claim 1 ~~claims 1, 2, 3, claim 2~~, wherein the band material used is a medical grade heat shrink ~~material such as~~ shape memory polymer or alloy such as shape memory alloy. ~~or Nitinol.~~

18. (Presently Amended) The surgical implant article of claim 1 wherein said heating means is an electrically heated hot tip instrument.

19. (Presently Amended) The surgical implant article of claim 1 ~~claims 1, 2, 3, claim 2~~ wherein said heating means is a laser.

20. (Presently Amended) The surgical implant article of claim 1 ~~claims 1, 2, 3, claim 2~~ wherein said heating means is radio frequency (RF) waves.

21. (Presently Amended) The surgical implant article of claim 1 ~~claims 1, 2, 3, claim 2~~ wherein said heating means is conventional electric Joule heating. ~~in case of a shape memory alloy band.~~

22. (Presently Amended) The surgical implant article of claim 1 ~~claims 1, 2, 3, claim 2~~ wherein said heating means is microwave.

23. (Presently Amended) The surgical implant of claim 1 ~~claims 1, 2, 3, claim 2~~ where is the encircling scleral band itself and its custom-made buckle is not of a heat-shrink material and is a biocompatible polymer such as silicone rubber.

24. (New Claim) A heat shrink buckle band equipped with a custom designed buckle in accordance with claim 1 wherein the band material used is a medical grade polyurethane